
PART I - ADMINISTRATIVE

Section 1. General administrative information

Title of project

Pend Oreille Wetlands Wildlife Mitigation Project - Kalispel

BPA project number: 9106000

Contract renewal date (mm/yyyy): 11/1999 ☒ **Multiple actions?**

Business name of agency, institution or organization requesting funding

Kalispel Tribe of Indians

Business acronym (if appropriate) KT

Proposal contact person or principal investigator:

Name Ray D. Entz

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NPPC Program Measure Number(s) which this project addresses

11.2D.1, 11.2E.1, 11.3D.4, 11.3D.5, 11.3D6, 11.3E

FWS/NMFS Biological Opinion Number(s) which this project addresses

N/A

Other planning document references

The following documents refer to need to mitigate hydropower impacts, need to protect habitat in the Albeni Falls Project area, and recognize that the federal hydropower system has impacted wildlife habitat in Idaho and Washington and calls for mitigation of the losses:

Bonneville Power Administration Wildlife Mitigation Final EIS (BPA 1997); Columbia River Basin Fish and Wildlife Program (NPPC 1995); Albeni Falls Wildlife Management Plan: Final EA (1996); USFWS Pacific Bald Eagle Recovery Plan (1994); WDFW Priority Habitats and Species program (1995); Washington State GAP Analysis (1997); An iterim report on the Fish and Wildlife Resources Affected by Albeni Falls Project, Pend Oreille River, Idaho (FWS 1953); Columbia River System Operation Review: Final EIS (BPA 1995); Albeni Falls Wildlife Protection, Mitigation and Enhancement Plan: Final Report (IDFG 1988); Kalispel Tribe of Indians Wildlife Mitigation and Restoration for Albeni Falls Dam: Flying Goose Ranch Phase I (UCUT 1993).

Short description

Protect, restore, enhance and maintain important wetland/riparian wildlife habitat along the Pend Oreille River as partial mitigation for the construction and operation impacts associated with Albeni Falls Dam consistent with regional planning documents.

Target species

Bald Eagle (breeding and wintering), Black-capped Chickadee, Canada Goose, Mallard, Muskrat, Yellow Warbler, and White-tailed deer

Section 2. Sorting and evaluation**Subbasin**

Pend Oreille River

Evaluation Process Sort

CBFWA caucus	Special evaluation process	ISRP project type
Mark one or more caucus	If your project fits either of these processes, mark one or both	Mark one or more categories
<input type="checkbox"/> Anadromous fish <input type="checkbox"/> Resident fish <input checked="" type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Multi-year (milestone-based evaluation) <input type="checkbox"/> Watershed project evaluation	<input type="checkbox"/> Watershed councils/model watersheds <input type="checkbox"/> Information dissemination <input checked="" type="checkbox"/> Operation & maintenance <input type="checkbox"/> New construction <input type="checkbox"/> Research & monitoring <input checked="" type="checkbox"/> Implementation & management <input type="checkbox"/> Wildlife habitat acquisitions

Section 3. Relationships to other Bonneville projects

Umbrella / sub-proposal relationships. List umbrella project first.

Project #	Project title/description

Other dependent or critically-related projects

Project #	Project title/description	Nature of relationship
9206100	Albeni Falls Wildlife Mitigation Project - IDFG	complimentary and interconnected in fulfilling mitigation for Albeni Falls Dam

9004401	Lake Creek Watershed Acquisition - Coeur d'Alene Tribe	complimentary and interconnected in fulfilling mitigation for Albeni Falls Dam

Section 4. Objectives, tasks and schedules

Past accomplishments

Year	Accomplishment	Met biological objectives?
1992	Land acquisition of 436 acre parcel for baseline protection of 371 HU's	Yes
1993	Began management efforts on the project	N/A
1994	Completed bio-engineered shoreline stabilization projects on highly eroded banks	Yes
1995	Completed implementation of three wetland control structures for increased wetland quantity, quality, and diversity	Yes
1996	Completed the construction of two nesting islands for waterfowl	Yes
1997	Land acquisition of additional 164 acre adjacent parcel for baseline protection of 246 HU's	Yes
1997	Five-year HEP update on original purchase showing an increase of 182 HU's through management activities	Yes
1998	Completed 25 acres of riparian cottonwood reforestation on the main acquisition site	Yes
1998	Completed 30 acres of hardwood stand improvement on the main acquisition site	Yes
1998	Completed the draft management plan for the additional parcel	N/A

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Restore and enhance approximately 600 acres and 700 Habitat Units (HUs) on the two properties comprising the project	a	Restore approximately 30 acres of eroded shoreline into a riparian black cottonwood forest
		b	Increase hardwood stands densities

			from 100 stems/acre to 900 stems/acre
		c	Restore approximately 20 acres of pasture to scrub-shrub wetland habitat
		d	Increase wetland quantity by approximately 90 surface acres and quality by using moist soil management techniques
		e	Increase overall stand health and individual tree heights using standard silviculture practices
		f	Stabilize and protect 1,500 feet of eroding shoreline and manage pasture for meeting life history requisites of various waterfowl
		g	Reduce human disturbance to species/habitats
2	Operate and maintain approximately 600 acres and 1,300 HUs on the two properties comprising the project	a	Property management and reporting requirements
		b	Management enforcement
		c	Fire protection and fire management
		d	fence repair and maintenance
		e	water control structure management, operation and maintenance
		f	Building maintenance
		g	Noxious weed control
		h	Maintain habitat improvements
3	Monitor and evaluate wildlife habitat and management activities on 600 acres	a	Conduct HEP on 5-year intervals to determine increase in HUs from enhancement measures
		b	Conduct appropriate wildlife guild/species population surveys on a random basis
		c	Monitor burned areas at regular intervals including soil and vegetation response
		d	Monitor control of noxious weeds
		e	Monitor human use
		f	Amend and update management plans as necessary

Objective schedules and costs

Obj #	Start date mm/yyyy	End date mm/yyyy	Measureable biological objective(s)	Milestone	FY2000 Cost %
1	5/1994	10/2003	700 HUs credited to BPA for Albeni Falls Dam wildlife impacts	X	50.00%
2	5/1993	10/2093	1,277 total HUs credited to BPA with adequate O&M funding	X	40.00%
3	5/1993	10/2093	Monitor and evaluate habitat and species response on 600 acres	X	10.00%
				Total	100.00%

Schedule constraints

Critical constraints include: funding stability over time for adequate operation & maintenance and monitoring & evaluation in order to provide HUs to BPA

Completion date

FY 2003 - Enhancement and restoration activities completed. Operations and maintenance activities and costs are will continue beyond 2003.

Section 5. Budget

FY99 project budget (BPA obligated): \$136,441

FY2000 budget by line item

Item	Note	% of total	FY2000
Personnel	.2 FTE oversight, 2.1 FTE (1 biologist, 1 tech and .1 equip operator) implementation	%45	68,598
Fringe benefits	30% of personnel	%13	20,580
Supplies, materials, non-expendable property	Plants, tools, etc	%6	10,000
Operations & maintenance	Fence repair, water control structures, building mainenance, vegetation maintenance, erosion maint.	%8	12,000
Capital acquisitions or improvements (e.g. land, buildings, major equip.)	vehicle lease	%4	6,000
NEPA costs		%0	0

Construction-related support		%0	0
PIT tags	# of tags:	%0	0
Travel	related meetings and training	%2	3,500
Indirect costs	19.8% of direct costs less contract services and capital equipment	%17	25,439
Subcontractor		%0	0
Other	heavy equipment lease and office space	%5	7,800
TOTAL BPA FY2000 BUDGET REQUEST			\$153,917

Cost sharing

Organization	Item or service provided	% total project cost (incl. BPA)	Amount (\$)
Kalispel Tribe	law enforcement	%2	3,000
Kalispel Tribe	project vehicles/equipment	%2	3,000
Kalispel Tribe	Computer, printer	%1	2,000
		%0	
Total project cost (including BPA portion)			\$161,917

Outyear costs

	FY2001	FY02	FY03	FY04
Total budget	\$156,000	\$162,000	\$168,000	\$87,000

Section 6. References

Watershed?	Reference
<input type="checkbox"/>	Bonneville Power Administration. 1997. Wildlife mitigation program final EIS. DOE/EIS - 0246. US Department of Energy, Bonneville Power Administration, Portland, Oregon.
<input type="checkbox"/>	_____. 1996. Albeni Falls wildlife management plan: final EA. DOE/EA - 2939. US Department of Energy, Bonneville Power Administration, Portland, Oregon.
<input type="checkbox"/>	Cassidy, K.M., C.E. Grue, M.R. Smith, and K.M. Dvornich. 1997. GAP Analysis for Washington state/final report. Washington Cooperative Fish and Wildlife Research Unit, University of Washington, Seattle, WA, Vol 1 - 5.
<input type="checkbox"/>	Dahl, T.E. 1990. Wetlands -- Losses in the United States, 1780's to 1980's. U.S. Fish and Wildlife Service Report to Congress, Washington, D.C.
<input type="checkbox"/>	Kalispel Natural Resource Department (KNRD). 1997. Fish and wildlife management plan. Kalispel Tribe of Indians, Usk, Washington.
<input type="checkbox"/>	Martin R.C., H.J. Hansen, and G.A. Meuleman. 1988. Albeni Falls wildlife

	protection, mitigation, and enhancement plan. Proj. 87-43. Bonneville Power Administration, Division of Fish and Wildlife, Portland, Oregon.
<input type="checkbox"/>	Merker, C. 1993. Kalispel Tribe of Indians wildlife mitigation and restoration for Albeni Falls Dam: flying goose ranch phase I. DE-BI79-91BP20287, Bonneville Power Administration, Portland, Oregon.
<input type="checkbox"/>	US Fish and Wildlife Service. 1994. Habitat Evaluation Procedures. Ecological Services Manual 102. US Department of the Interior Fish and Wildlife Service, Division of Ecological Services, Washington, D.C.
<input type="checkbox"/>	_____. 1980. Habitat Evaluation Procedures. Ecological Services Manual 102. US Department of the Interior Fish and Wildlife Service, Division of Ecological Services, Washington, D.C.
<input type="checkbox"/>	_____. 1953. An interim report on the fish and wildlife resources affected by albeni Falls project, Pend Oreille River, Idaho
<input type="checkbox"/>	Washington Department of Fish and Wildlife. 1995. Priority habitats and species list. Washinton Department of Fish and Wildlife, Olympia, Washington

PART II - NARRATIVE

Section 7. Abstract

The Pend Oreille Wetlands Wildlife Mitigation project was proposed as partial mitigation for wildlife losses associated with the construction of Albeni Falls Dam. Approximately 600 acres of floodplain property were purchase by the BPA (in 1992 - 436 acres and in 1997 - 164 acres) and are being managed by the Kalispel Tribe to benefit wildlife habitats and associated species. Seven habitat types exist on the project. These habitat types are forested wetland, scrub-shrub wetland, emergent wetland, wet meadow or floodplain grassland, open water, upland forest, and riparian deciduous forest. These cover types represent Habitat Suitability Index (HSI) models for target species as part of Habitat Evaluation Procedures (HEP). This procedure is used to monitor and evaluate the habitat and as an accounting measure to credit the BPA for wildlife mitigation. Restoration and enhancement activities include riparian reforestation, bio-engineered bank stabilization, hardwood stand enhancement, water control structures/water level management, prescribed burning, native vegetation enhancement, coniferous stand improvements, pasture management, nesting island construction, and general operations and maintenance activities that include monitoring and evaluation. Each habitat cover type relates to a target species used in HEP to determine losses and gains. In addition to target species, other species/guilds benefiting from the project include, reptilian and amphibian guilds, native and non-native resident fish populations, black bear, Neotropical migratory birds, and small mammal populations.

Section 8. Project description

a. Technical and/or scientific background

The human utilization pattern of the Pacific Northwest has been and continues to rely heavily upon the Columbia River and its associated resources. The development of the Columbia River Basin has provided many modern and social benefits including irrigation, hydropower, and flood control. These benefits have come with many costs that have been largely ignored for years. As free-flowing riverine system became a series of reservoirs, the historic salmon and steelhead runs became sparse and even extinct in areas. Riparian corridors and adjacent uplands were inundated. Perhaps most important and least understood were the cumulative impacts to these resources.

Other land uses have also had impacts to native wildlife habitat in the Columbia Basin over the past 200 years. Since the 1860's wetlands have decreased nearly 50%. As an example, Idaho wetlands have declined from about 879,000 acres to about 386,000 acres, nearly 56% (Dahl 1980).

Although the obvious cost of hydropower was the impact to anadromous fisheries, the cumulative impacts to wildlife were also recognized. As a result of the Pacific Northwest Power Planning and Conservation Act of 1980 (PL 96-501), the Northwest Power Planning Council (NWPPC) developed the Columbia River Basin Fish and Wildlife Program (FWP) to address these impacts and to ensure that wildlife received equitable treatment in matters concerning mitigation for the hydropower system. The goal of the FWP wildlife strategy is "to achieve and sustain levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by the construction and operation of the federal and non-federal hydropower system" (Sec. 11.1, 1995 Amendments).

In 1955, Albeni Falls dam was completed, permanently effecting lake levels and floodplain hydrology. Impacts included shallow wetland flooding along the Lake's perimeter degrading areas known to produce high concentrations of waterfowl food plants, both emergent and aquatic (USFWS 1960 in Martin et al. 1988). Presently, the primary threat to the wetland and riparian systems is the continuing increase in recreational home development. Fragmentation of critical wetlands serving as buffers from human disturbance poses a significant risk to waterfowl nesting areas and bald eagle breeding and wintering habitat.

The formation of an interagency workgroup in 1986, by IDFG, led to the development of the Albeni Fall Wildlife Mitigation Plan which served as the loss assessment and planning document for Albeni Falls Mitigation efforts. Using Habitat Evaluation Procedures (HEP), biologists, from several agencies, Upper Columbia United Tribes and the Kalispel Tribe, estimated a net loss of 28,587 HU's for a variety of target species. Construction and operation of the dam resulted in the loss of 6,617 acres of wetland and the inundation of 8,900 acres of deep-water marsh. The Albeni Falls Wildlife Mitigation project is designed to mitigate those losses. It partially mitigates for HU losses for target species identified for Albeni Falls Dam (Table 11-4 in NWPPC 1995; USFWS 1980). This project, as part of the Albeni Falls Wildlife Mitigation Plan, partially mitigates for these same losses. Also, in conjunction with the NWPPC and CBFWA's wildlife caucus, criteria for ranking wildlife projects is used to rank this project annually.

b. Rationale and significance to Regional Programs

As part of mitigating losses associated with the construction of Albeni Falls Dam, this project is related to the NWPPC FWP through two mitigation planning documents (Martin et al., 1988 and Merker, 1993). This project mitigates habitat in-kind (i.e., riparian forest and wetland) and in-place (15 miles downstream of Albeni Falls Dam and adjacent to the Reservation). The dominant habitat types (90% wetland and riparian) are high priorities consistent with the NWPPC wildlife mitigation priorities for the upper Columbia River Basin (Table 11-2 in NWPPC 1995). The project is closely associated with the Albeni Falls Dam Wildlife Mitigation Project as implemented by the Idaho Department of Fish and Game, three tribes, and the US Fish and Wildlife Service. Because habitats mitigated are similar, shared knowledge and techniques can enhance the outcome of future projects and their objectives. All habitat types on the project are linked to one or more of the HEP target species used in Albeni Falls Dam wildlife mitigation planning.

Project methods and milestones will be shared with Basin wildlife managers through CBFWA, BPA, and the NWPPC to better understand and implement mitigation in the future.

c. Relationships to other projects

This project is part of a larger effort to fully mitigate losses for Albeni Falls Dam and other federal hydropower projects within the Columbia River Basin. The Albeni Falls Wildlife Mitigation project (9206100) is one of the other actions mitigating these losses. Lake Creek Land Acquisition project (9004401) is another smaller project aimed at partially mitigating Albeni Falls losses. Presently this project is mitigating approximately 5% of the total losses at Albeni Falls Dam. It is ranked and scrutinized annually for program consistency by the CBFWA Wildlife Caucus. This project has a long history of being an icon for regionally significant projects producing on-the-ground benefits to wildlife. It is the oldest wildlife mitigation project implemented under the NWPPC Fish and Wildlife Program.

Project relationships to the Box Canyon Dam license amendment settlement and relicensing efforts by the Pend Oreille County PUD #1 are inherent and intertwined. Mitigation efforts are to be coordinated and methods shared in order to cost effectively mitigate within the Pend Oreille River area in Washington.

This project is also related to wetland and floodplain related projects along the Pend Oreille River through the sharing of locally adapted knowledge of these systems. Currently, the project is managed in association with an adjacent US Forest Service and county properties, Reservation wetland/floodplain enhancement projects, Tribal shoreline protection/stabilization efforts, and Pend Oreille Conservation District wetland/floodplain and shoreline improvement projects. In 1994, the Tribe, in cooperation with Pend Oreille County and the Pend Oreille Conservation District, implemented nine shoreline stabilization techniques as demonstration projects for area residents to view and receive information on different stabilization methods. The project also allows for public access to the adjacent US Forest Service property for wildlife management and associated compatible human uses.

d. Project history (for ongoing projects)

In 1954, the Army Corps of Engineers constructed Albeni Falls Dam. The effects of the Dam reversed normal hydrologic patterns evidenced by the loss of 6,617 acres of riparian and wetland habitats and inundation of 6,800 acres of deep water marsh along the littoral and riparian zones of Lake Pend Oreille, Clark Fork River and Pend Oreille River. 1980 marked the passage of the Northwest Power Planning and Conservation Act and the formation of the NWPPC. Subsequent development of the Columbia Basin Fish and Wildlife Program led directly to efforts that assessed wildlife related impacts associated with the federal hydropower system. In 1987, BPA funded IDFG to assess these losses and develop a mitigation plan for habitat protection, mitigation, and enhancement for the Dam (Martin et al, 1987). As part of that plan, in 1990, the Pend Oreille Wetlands project was submitted to the Implementation Planning Process (IPP) and reviewed by the BPA Policy Review Group (PRG). Of 32 projects submitted, this project was ranked third in importance within the region. In 1991, the NWPPC voted 7-1 directing BPA to purchase the property. Finally, in December of 1992 BPA purchased the property and funded the Tribe to develop the project management plan.

In May 1993, BPA entered into agreement with the Tribe to fund management of the project and in 1997, the property was transferred into trust with the BIA for the Tribe. The Tribe then proposing a 164-acre purchase adjacent to the project during the 1994 and again in the 1995 rule makings. During 1997, the Tribe helped to complete all necessary requirements and in July the property was purchased as well as assessed for baseline condition using HEP. At that time HEP was also used to assess the original project condition at year 5 of implementation showing an increase of 182 HU's. The new addition is now being managed as part of the original project through its contract and funding. As of 1998, the Tribe has implemented the management plan through year six. With four years of enhancements yet to be completed. Project costs to date are \$750,293. Project related reports include: Merker (1993) – the project management framework; Entz (1997 - unpublished) – Five year habitat evaluation procedures for the project; Entz (1998 - unpublished) – Site specific management plan for the 164-acre addition, monthly progress reports, and 1997 & 1998 annual summary reports.

As of 1998, the Tribe has completed several milestones toward the completion of the enhancement and restoration phase of the project. The milestones are as follows: project clean-up activities are completed, construction and operation of three water control structures for ~90-acres of wetland enhancement were completed in 1995, construction of two goose nesting islands was completed in 1996, 30 acres of black cottonwood reforestation was completed through 1998, 10 acres of scrub-shrub wetland restoration was completed through 1998, and 1500 feet of shoreline stabilization and erosion protection was completed in 1994, a five-year HEP was conducted to monitor habitat results in 1997, and annual pasture management, water control structure operation, weed control as well as other project related O & M activities. Adaptive management is implemented based upon monitoring and evaluation of individual project success. Alternative methods will be developed and/or employed as information suggests that project goals and objectives are not being met.

The chronology for this project is as follows.

In 1988, an interagency work group completed the Albeni Falls Dam Mitigation Plan that identified this project as a mitigation site.

In 1990, it was ranked and in 1991 it was approved by the NWPPC to be purchased. Also in 1990, Washington Department of Fish and Wildlife mapped and identified these two properties as priority habitat in Washington, providing critical waterfowl nesting habitat.

In 1993, the Tribe, in consultation with the Upper Columbia United Tribes, completed the management plan for the project otherwise known as the "Flying Goose Ranch".

In 1995, the Kalispel Natural Resource Department completed its Fish and Wildlife Management Plan that further identified the Flying Goose Ranch as a priority project.

1997 marked the year that Bonneville Power Administration, in consultation with the Basin Manager's, completed the Wildlife Mitigation Plan EIS.

All these events lead to conclusions that support habitat acquisition and management of this area as a specific priority for habitat protection.

Currently 600 acres in the form of 585 HU's are protected, 182 HU's have been enhanced, and at least 515 HU's will be enhanced by 2004. HEP and other M & E methods will be employed to determine the level of success and crediting to be given BPA for Albeni Falls Dam wildlife mitigation. The projects are located in Pend Oreille county, Washington, Sec 18, 19, and 20, T. 34N., R. 44E. W.M.

e. Proposal objectives

Objective 1. Restore and enhance approximately 700 Habitat Units (HUs) on the two properties comprising the project through 2003.

The restoration and enhancement efforts implemented under this project will benefit several habitat types and associated target species, including bald eagle (breeding and wintering), black-capped chickadee, Canada goose, mallard, muskrat, white-tailed deer, and yellow warbler. Estimates show that these efforts will increase HU's/acre from .82 (baseline) to about 2.2.

Objective 2. Operate and maintain approximately 1,300 HUs (those provided in objective 1 and those protected through previous acquisitions) on the two properties comprising the project.

Annual management actions will be consistent with the BPA wildlife mitigation final EIS and CBFWA Guidelines for Enhancement, Operation, and Maintenance Activities for Wildlife Mitigation Projects (1998). These efforts will provide both enhanced habitats and maintained HU values for the project.

Objective 3. Monitor and evaluate wildlife habitat and management activities on 600 acres. Limited monitoring and evaluation activities began in 1993.

The KNRD is currently monitoring wildlife activities and responses to management activities. A detailed monitoring and evaluation plan is desired and will be completed in conjunction with regional efforts to standardize methods for monitoring mitigation projects. These data will further our understanding of

mitigation actions and their effects on habitat and species response. Without a clear understanding of species, guild, and community associated responses to habitat protection, restoration/enhancement, and maintenance, we cannot effectively manage mitigation projects in context with surrounding landscapes. Therefore, monitoring and evaluation efforts will be very important in driving adaptive management principles in relationship to this project.

f. Methods

The project is being managed to restore and enhance in-kind habitat lost due to the construction of Albeni Falls Dam. Estimated project credit to BPA is at least 1,277 HU's. Methods used to restore and enhance habitat on the project will include the following.

1. HEP will be used as the primary means of monitoring project accomplishments to credit BPA for its hydropower wildlife mitigation obligation. The US Fish and Wildlife Service has developed the habitat based evaluation methodology entitled Habitat Evaluation Procedures (HEP) for use in impact assessment and project planning (USFWS 1980).
2. Riparian reforestation – In 1997, we used five acre plots to test two methods of ground preparation for black cottonwood reforestation that were used to direct future planting strategies. It was determined that removal of competing vegetation was necessary for survival of black cottonwood trees (Entz 1997 – Unpublished). Observation, enumeration, and HEP will be used to monitor and evaluate the success of the project. Adaptive management principles will be used to alter management activities in order to meet project objectives in a cost-effective manner. Additional cottonwood plots will be implemented to reforest riparian corridors.
3. Riparian forest enhancement – using root disturbance methods, hardwood stand (black cottonwood and aspen) recruitment is to be improved from 100 stems/acre to 900 stems/acre. A stem/acre enumeration technique and HEP will be used to monitor success of the strategy. Accordingly, adaptive management techniques will be applied in order to increase effectiveness of this objective. We will also remove competing conifer invasions from existing stands.
4. Scrub-shrub enhancement –restoration efforts using native vegetation to increase the occurrence of this habitat type will occur throughout 2003. Plot sampling and HEP will be used to monitor the success and evaluate (under adaptive management principles) future needs or alterations to meet specific project goals.
5. Wetland enhancements – using water control structures and vegetative enhancements, improve and increase wetland quality, quantity, and diversity on the project. Using HEP, avian sampling, and modified Daubenmire plots, monitor the effectiveness of the techniques toward meeting project goals. Also, evaluate the success and use adaptive management to alter project objectives to meet overall resource goals.
6. Upland forest management – use forest silviculture practices to meet project objectives. HEP and target species/guild surveys will be used to monitor project effectiveness and evaluate project success by providing adaptive management strategies for meeting long-term project goals

7. Pasture and shoreline management – use standard techniques (mowing and bio-engineered stabilization techniques) to manage pastures and shorelines to meet project objectives. Use HEP and target species population surveys to monitor and evaluate project success. Adaptive management will be incorporated to meet project goals and maximize long-term success.
8. Human management – using seasonal restrictions, kiosks, educational presentations, and signs, people will be managed to increase project success by reducing conflicts associated with human disturbance. Use observations to monitor and evaluate the success of these measures in meeting the project goals. Employ adaptive management strategies to alter management course and improve overall effectiveness of the project in meeting goals and objectives.

g. Facilities and equipment

Facilities key to project success are lights, phone, e-mail, facsimile, and associated support provided by the Tribe through indirect costs. With the exception of office space, which is funded by the project.

One work vehicle and a computer are supplied by the Tribe, with maintenance and operational funding provided by the project budget. An additional work vehicle will be supplied by this project.

A storage facility was acquired along with the property. This storage barn receives maintenance from the project budget. All heavy equipment (tractor, swather, bailer, backhoe, loader, trackhoe, and dump truck) is leased or provided through the Tribe. All other equipment is expendable and purchased in accordance with the schedule outlined in the site specific management plans.

h. Budget

The salaries necessary to complete the work products and milestones associated with the project include one full time biologist and technician to complete on-the-ground actions. A heavy equipment operator is necessary to complete tasks associated with certain needs. In addition a .2 FTE for project oversight is necessary to complete the administrative and process related actions associated with this project and its continued funding. The increase in the salary line items reflects the additional 164-acre project and its associated management.

Fringe benefit rates are determined by the Tribal accounting department and are reflected accurately. Increases in the Fringe total are reflective of the increase in the salary category.

Supplies and materials include native plants and tools necessary to complete project objectives and milestones related to the on-the-ground efforts. Office supplies and support materials are also necessary in meeting project objectives.

Operations and maintenance items include items such as vehicles, buildings, fencing, water control structures, and habitat restoration/enhancement activities necessary to fulfill objectives.

Equipment lease for a vehicle and office space is necessary to perform project objectives. The Tribe donates the use of one work vehicle, several smaller implements,

computer, printer, copier and fax support. However, there is a need for an additional roadworthy vehicle to perform project objectives. The lease rates necessary are less than comparable GSA rates for the same vehicle.

Indirect costs for FY 2000 are estimated by the Tribe to be 19.8% of the total direct costs less contract services and capital outlay over \$500. The total project costs committed to indirect costs are about 17%.

Section 9. Key personnel

Personnel working on this project, one full time biologist, one full time technician, and part-time supervisor and heavy equipment operator, meet or exceed specific qualifications necessary to implement the project as outlined by the Kalispel Tribe of Indians. Personnel working on this project are as follows:

RAY D. ENTZ

3205 W. Queen Pl.
Spokane, WA 99205
(509) 324-0219

OBJECTIVE

To manage and provide direction in the management of wildlife and associated resources in an ecologically sound and beneficial manner for the long-term sustainability of those resources.

EXPERIENCE

1997–present Kalispel Tribe of Indians Usk, WA

Wildlife Program Manager

Instrumental to the development of the wildlife program.

- Assisted in the development of tribal hunting and fishing regulations and seasons, including off reservation ceded lands waterfowl seasons.
- Represent the tribe in wildlife related policy issues within the Columbia River Basin and provide support to Department Director and Assistant Director regarding technical and policy issues.
- Represent the Tribe in FERC relicensing issues, Federal hydropower mitigation, and local forums as they relate to the protection, restoration, or enhancement of important wildlife resources.
- Develop monitoring and evaluation plans to assist the program in adaptively managing wildlife resources.
- Developed and implemented several bio-engineered shoreline stabilization projects from 1997 – present.

1993–1997 Kalispel Tribe of Indians Usk, WA
Assistant Director/Wildlife Biologist

- Developed the wildlife program from the ground up.
- Managed a 436-acre wildlife mitigation project including wetland and riparian associated enhancements and restoration.
- Instrumental in the acquisition of an additional 164-acre wildlife mitigation project to be managed with the 436-acre project.
- Implemented several bio-engineered shoreline stabilization projects from 1994 - 1996.
- Assisted Director in hiring and developing current staffing and current Department direction/structure. Assisted in the development of the Tribe's Fish and Wildlife Management Plan.
- Oversaw project operations, budgeting, and contract compliance.
- Assisted in writing, obtaining, and implementing several grants and contracts.

Jun 1992–Nov 1992 Eastern Washington University Cheney, WA
Research Assistant

- Lead investigator on artificial nest depredation study. Completed vegetative analysis and computer data entry and analysis.

Jul 1991-Dec 1991 Eastern Washington University Cheney, WA
Biologist

- Liaison for interagency communications over wetland restoration project.
- Applied and conducted Habitat Evaluation Procedures (HEP) for the project and co-lead HEP team consisting of various agency personnel.

1983 – 1987 U.S. Army Oscoda, MI
Veterinary technician

- Responsible for public health related issues, zoonotic disease control and providing health care for military working dogs.

EDUCATION

1987–1991 Eastern Washington University Cheney, WA
 BS, Biology/Zoology.

- Magna Cum Laude.

1991–1995 Eastern Washington University Cheney, WA

- MS, Biology

VOLUNTEER WORK

Serve on Spokane Chapter of the Rocky Mountain Elk Foundation.
 Member of local chapter of Duck's Unlimited.

SPECIAL INTERESTS

Photography, outdoor activities, sports, birding, hunting, and fishing.

KALISPEL NATURAL RESOURCE DEPARTMENT

Job Description for Darren Holmes

Biologist I

Job Description: This is the entry-level classification for the professional Biologist series. Performs professional field, laboratory, or statistical management or research studies, using established scientific principles and techniques.

Duties:

1. Provide oversight and direction to technicians.
2. Provide monthly, quarterly, and annual reports
3. Integrate with Natural Resource and other Tribal Staff and perform other duties to meet the objectives of the Natural Resource Department and the Tribe.
4. Ensure that the goals and objectives of the Fish and Wildlife Management Plan are being met.
5. Attend technical meetings with state, federal, and tribal entities.
6. Provide technical assistance to biologists and Program Managers
7. Conducts biological studies or carries out programs for which precedence and patterns have been established; processes biological data, using established data conversion and statistical procedures; drafts summaries and reports of recurrent population and migration studies;
8. Performs other work as required.

Minimum requirements: Minimum Bachelors of Science or equivalent in specific biological field with at least 1 years experience within the wildlife field. Each educational degree can be used as 2-year experience.

KALISPEL NATURAL RESOURCE DEPARTMENT

Job Description for Arlen Auld

Technician I

Job Description: Assist biologists and lead technicians with restoration/enhancement projects. Assist the division staff in implementing information and education projects.

Duties:

1. Assist biologist and lead technician with the implementation of riparian hardwood and shrub plantings.
2. Assist in the construction/installation of fisheries and wildlife habitat projects.
3. Assist in the collection data associated with project monitoring.
4. Perform other duties as assigned by the biologist and lead technician.
5. Other duties as assigned.

Minimum requirements: Minimum High School diploma or GED

Experience:

1 year: Wildlife Technician – KNRD

Education:

High School Diploma, 1994, Cusick High School

5 college credit hours, 1995, Spokane Falls Community College

KALISPEL NATURAL RESOURCE DEPARTMENT

Job Description for Sonny Finley

Technician I

Job Description: Assist biologists and lead technicians with restoration/enhancement projects. Assist the division staff in implementing information and education projects.

Duties:

1. Assist biologist and lead technician with the implementation of riparian hardwood and shrub plantings.
2. Assist in the construction/installation of fisheries and wildlife habitat projects.
3. Assist in the collection data associated with project monitoring.
4. Perform other duties as assigned by the biologist and lead technician.
5. Other duties as assigned.

Minimum requirements: Minimum High School diploma or GED

Experience:

1½ years: Fish & Wildlife Technician – KNRD

Education:

High School Diploma, 1996, Cusick High School

9 college credit hours, Haskell Indian Nations University

KALISPEL NATURAL RESOURCE DEPARTMENT

Job Description for Brian Auld

Technician III

Job Description: Assist biologists and lead technicians with restoration/enhancement projects. Assist the division staff in implementing information and education projects. Supervises technicians.

Duties:

1. Performs rough carpentry, cement work, site clearance, and other labor in helping to construct special fish traps, seining sites, research gear, and small field installations; operates and maintains boats, outboard motors, various types of sampling and processing gear, and light automotive equipment;
2. Records and maintains accurate field and laboratory records including logs and biological and chemical data as it relates to the particular project; maintains logs pertinent to conditions of surveys;
3. Maintains chemical and biological laboratory and field equipment;
4. Prepares and operates laboratory and field analytical equipment;
5. Integrates with Natural Resource and other Tribal Staff and performs other duties to meet the objectives of the Natural Resource Department and the Tribe;
6. Prepares monthly reports in regard to the KNRD Fish and Wildlife Management Plan;
7. Supervises technical field crews; and
8. Attains specific knowledge necessary to complete tasks (e.g. HEP certification, Plant identification courses, etc).

Minimum requirements: Minimum High School diploma or GED and 4 years of experience with specific training within field. Each educational degree can be used as 2-year experience.

Experience:

1½ year: Wildlife Technician – KNRD

Education:

High School Diploma, 1991, Cusick High School

36 college credit hours, 1992-1994, Spokane Community College

Section 10. Information/technology transfer

Information will be in the form of annual progress reports, scientific reports, internal reports/documents, and/or public and professional presentations.

Congratulations!